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Abstract: Enthusiasm is growing in non-traditional environments for teaching design by adapting knowledge and approaches from studio pedagogy, described as a "signature pedagogy" by Shulman in 2005. Meanwhile, those in fields where some variation of studio pedagogy have been used for decades are engaged in addressing some of its experienced shortcomings. Within this landscape of change, the authors have been engaged in study of their own studio-based courses, (interior design, instructional design, and interaction/experience design), reflecting on how this form of pedagogy is contributing to students' development as designers. In this study we consider the role of the instructor in the studio using a lens informed by narrative aesthetics and transformative education. The narrative that an instructor encourages students to experience with regard to themselves, to the instructor, or to both, has a profound impact in the studio environment. This paper will explore that impact within the context of the authors' own courses via review of course notes and collaborative reflection with colleagues.

Keywords: studio education for design, transformative education, narrative

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Enthusiasm is growing in non-traditional environments for teaching design by adapting knowledge and approaches from studio pedagogy (DiGano, Goldman & Chorost 2009), described as a "signature pedagogy" by Shulman in 2005. While multiple variations of studio pedagogy exist, a recent study of architecture, industrial design and interaction/experience courses using studio approaches (Cennamo, Brandt, Scott, Douglas, McGrath, Reimer & Vernon 2011) begins with a general description of studio based learning, which includes "a space where students are assigned individual desks that are, in most cases, available to them at all times;" classes usually meeting "multiple times a week for three- to four-hour sessions, with students encouraged to work in the studio rather than at home during off-hours;" design problems which students work alone or in small teams to solve; and "formal and informal critiques." Cennamo et al. point out that instructors do not lecture, but provide "experiences that lead students to new insights in their work."

Meanwhile, those in fields where some variation of studio pedagogy have been used for decades are engaged in addressing some of its experienced shortcomings. Key concerns include questions about critique, specifically their efficacy, consistency, and transparency (Anthony 1991; Barrett, 2000; Webster 2007; Wilkin 2000), about prioritizing physical characteristics of designs over social and political issues (Salama 1995), and about focusing inward as a cultural norm in the studio versus focusing on the concerns of users clients (Nicholson 2000; Mewburn 2010). Studio models of teaching and learning require a lot of time and space, making them difficult to justify in times when budgets and student-teacher ratios are shrinking—even as competency requirements for design students multiply (Morgado 2009). Tight budgets also make it difficult to maintain faculty expertise required by studio teaching (Salama 1995). Instructors note barriers their students face in learning within the studio approach (Matthews 2010; Siegel & Stolterman, 2008) and students report difficulties navigating the studio environment (Chen 2001; Willenbrock 1991).

Transformative Learning and the Studio

Learning how to design can be transformative for students who think they will find prescriptive processes or, at the other extreme, the freedom to express their artistic visions with little regard for clients and other constraints. In fact, transformation may be necessary just to get novice designers out of their preconceived notions of design (Siegel & Stolterman, 2008). In an attempt to uncover those qualities that contribute to making a learning experience transformative, rather than mundane or merely utilitarian, Parrish, Wilson and Dunlap (2011) have looked to Dewey's aesthetic and ontological theories of experience (Dewey 1934/1989). They describe the transactional basis of learning experiences in terms of the contributions made by the situation (the designed experience) and by the individuals involved (learners, instructors, and instructional designers). As these qualities are enhanced, the experience has higher potential to move from being unsatisfying to becoming challenging and aesthetic, and even transformative (see Figure 1).

Elements of the studio—open working space, the design brief as a primary assignment, critique—may naturally enhance the immediacy, malleability, and compelling quality of the learning situation. However, design briefs may or may not include "activities that move in concert toward a clear consummation," and instructors who "bring … personal qualities to the table as they interact with learners" may or may not be intentional with regard to resonances and coherence (Parrish, Wilson & Dunlap,

2011). And no matter whatever else is going on, some of the qualities outlined in this framework may not be fully achievable without some integrating force, one which attention to narrative might supply.
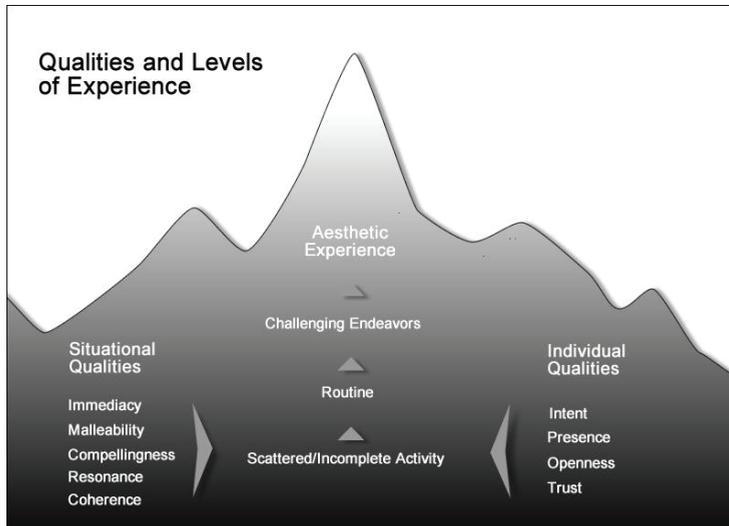

Figure 1. Situational and individual contributors to aesthetic experience. The qualities shown on either side of the diagram interact with each other, working together to promote higher levels of challenge and aesthetic experience, but they are not uniformly present at all times. Therefore the level of challenge and aesthetic experience will fluctuate over time as shown by the fluctuating line.

Narrative structures and the instructor's role in the studio

Despite the unending stream of stories generated in books, films, and theater, fictional narratives manifest themselves in what turns out to be a surprisingly narrow range of prototypical structures (Booker, 2005). Our ability to find this narrow range is likely due to the fundamental role of narrative in helping us make sense of our experiences (Burke 1966; Bruner 1990). For example, Dewey describes the narrative nature of experience as the definitive quality of the "live creature," a narrative stimulated by the impulse to resolve indeterminate situations and given structure by the pattern of inquiry that follows (Dewey 1934/1989; Dewey 1938/1991). Those exploring fictional and religious narratives find something deeper and more poetic. Campbell (1968) examines the prevalence of the hero's journey in our mythic narratives, a pattern in which a person ventures out to perform a heroic deed and is transformed in the process. Writers of fiction recognize these, but also find their own broader and more prescriptive patterns to help stimulate and validate their creations. For example, although the categories vary in name and breadth, writers on fiction often see narratives as falling a half dozen categories, all of which can inform our views of the learning process.

However, some have found it useful to narrow the range even further to the following two archetypical narratives: 1) stranger comes to town (bringing novelty and conflict, and challenging the status quo); and 2) someone goes on a journey (which

forces the person to face novelty, conflict, and a challenge to their internal status quo). Because learning, and particularly learning something as challenging as design, can require significant personal change, in this paper we use these final two narrative structures as our starting point for reflections that may lead to further inquiry.

The role of the instructor within studio pedagogy is not to envision or re-design the super-structure of that pedagogy, which is to some extent set and contributes to efficiency on the curriculum level, according to Shulman (2005), but to bring situational and individual qualities together within the individual studio providing what Cenammo et al call "experiences that bring new insight." Mention of instructors runs like a thread through discussions of all the other, tightly integrated features of studio. Researchers also examine the activities of studio instructors directly. Klebesadel and Kornesky (2009) speak in detail about instructors' contributions to critique, and their effect on students and learning in the studio, potentially positive and negative, including the need to negotiate a relationship that includes both support for the student and judgment of that student's work. Lawson and Dorst (2009) discuss the observed role of the instructor (tutor) in the studio, concluding that discussions between tutors and design students "require enormous skill to manage" (p. 256). Aiming to help instructors who may not themselves experience studio based learning, but who have been expected to practice it, Cennamo, et al. (2011) conclude, based on their observations and analysis, that "… experienced studio instructors increased the transparency of the design problems as they modeled their design-thinking; guided students through the heterogeneous, dynamic nature of the design problem through their assignments, sub-assignments, and associated meta-discussions; and helped students learn to evaluate the legitimacy of competing alternatives as through questioning and prompts."

In each case, the instructor is depicted simultaneously as a sensitive instrument serving a role in the overall pedagogical system, and as simply one element (albeit a complex and sensitive one) in what seems almost like a self-running system. Shulman (2005) explains that signature pedagogies are efficient because both instructors and students move from course to course without having to relearn the pattern of these features and practices. In traditional domains of design, the assumption might be made that studio instructors know what to do because they studied in studio themselves—absorbing not only the learning that developed them into designers, but the model of how to be an instructor impressed on them by virtue of its being a vehicle for their development. For the individual instructor in the studio, however, is this view sufficient? Can such complexity and sensitivity be managed on a piecemeal basis—as elements of critique, of problem-setting, of setting and moderating discussions, and so forth? In the attempt to avoid an arbitrary approach to studio pedagogy (Elkins 2001), but to acknowledge that the individual instructor must bring him- or herself fully into the studio—at least as a professional self—in order to play the demanding role required, we see the need to begin examining studio instruction from the instructor's perspective.

Reflections of Studio Instructors

The co-authors of this study have been engaged in separate and collaborative studies of their own studio-based courses (interior design, instructional design, and interaction/experience design), reflecting on how this form of pedagogy is contributing to students' development as designers (Boling & Smith, in press; Siegel & Stolterman, 2008; Smith, in progress). Over several years of weekly conversations specifically

focused on our lived experience of teaching in the studio, it has become clear to us that none of us enacts our roles in the studio, or is even capable of doing so, in exactly the same way as the others. We also attribute some critical dimensions of our studios to our individual presence and approach. This makes sense in light of the framework we apply here; our personal qualities are manifest differently in each of us.

In this paper, each of us presents the case of our own studio teaching in reflective form, using our combined discussions with each other, review of course notes and field notes, as well as previous and ongoing research into our own courses. We choose this lens of narrative aesthetics (Parrish, 2005) and transformative education (Parrish, 2011; Parrish, Wilson & Dunlap, 2011) in the shared understanding that design education is intended to transform the student (already possessing the human's natural inclination to design) into an individual prepared to work as a professional designer, and that narrative may help to explain how studio instructors handle the overwhelming complexity of this signature pedagogy.

The Cases

Case 1: Undergraduate Interior Design – Student Goes on a Journey

The studio students with whom I work are on an adventure that lasts multiple years. They may work with me for only one studio, (often in the middle of their journey) and have come to recognize certain patterns, but have quickly learned that individual studio instructors all interact with them differently. In narrative terms, they encounter a series of diverse characters along the path of their journey. For some students this is disorienting, especially early on. By the time they are in upper-division studios, they seem less threatened by the variety between instructors, even appreciating that they are working with professionals who bring different approaches and outlooks to the classroom. The challenge as an instructor is to provide reasonable continuity while not artificially simplifying the natural complexity of design, and the various outlooks we bring to design situations.

In many journey stories, the protagonist is assisted by a mentor to overcome a common foe or to fulfil some difficult quest. One of the challenges in studio is that students sometimes seem to regard me as mentor one moment, and foe the next. In regular work-sessions, most students freely share their work-in-progress, and receive and respond to feedback. I sense that they regard me as a mentor in this setting and view my suggestions and questions as contributions to their progress. However, in some other cases, it seems that there is a fine line, in the student's mind, between assisting and frustrating their progress. If I give radical feedback that they cannot connect to their current position, or that requires work beyond what they are willing or feel capable of doing, the interaction suddenly feels very different—that I am regarded as an obstacle instead of a help. While an instructor might recognize that a real mentor sometimes should stop or re-direct forward progress, the student might interpret such critique as over-reaching, or an attempt on the teacher's part to assume ownership over their project. This dual face of the mentor-companion is a staple of journey stories.

Additionally, I often am playing multiple roles (not simply friend or foe) and must mediate among them when interacting with students. Specifically, I am there to assist the student in overcoming challenges, but also to ensure sufficient challenge to stretch

the student beyond current abilities. On top of this, I am ultimately responsible for grading the student's project, which creates a somewhat artificial dynamic and seems to cause significant discomfort to some students.

An example helps illustrate the multi-faceted role I play in the student's journey. If I am working with a student on a residential remodel and I see a space-planning decision I know is inefficient, for which I can imagine a more seamless configuration, do I stop the student and offer the alternative that is informed by my longer years of experience, or do I permit the student to proceed with the strategy they have initiated? From my perspective, one choice may provide practical knowledge in situ that the student did not have before; the other—though uncertain in outcome and potentially time-intensive—may offer the student a chance to experience a deeper connection with her work and my knowledge while she works through the problem than she would have had otherwise.

From the students' perspective, when they show me their preliminary work, they are likely doing so for two inter-twined reasons: first, to get feedback on how they might improve the design, and second, to gauge where their work falls in relation to standards I will be applying when grading. In other words, they are seeking guidance to lead to a successful product (me as a mentor character in their journey), but also to gauge their potential grade (which casts me as one of the monsters they must overcome on their way). This perspective is not present only in the students' minds; as an instructor I could choose to give an A to any project on which I consulted a student, or I could choose to assist students at such a level that all their work would earn a justified grade of A. But my role here is reminiscent of Merlin's in the story of Arthur's education (White 1977)—Merlin transforms Arthur and himself into a variety of animals, some of them placing Arthur in actual jeopardy, in order to develop the qualities he needs to have as a knight.

This dual role can interfere with developing the confidence needed between a successful protagonist and their mentor or advisor, unless the protagonist trusts that ultimately the mentor will not let them struggle for no reason, but because something is to be gained through such a difficult experience—something which cannot be gained in another way. In the studio, this seems to play itself out in very different ways depending on the characteristics of the student with whom I am working. Interactions between us often work best when I have had the opportunity to work with a student long enough to be able to make judgments beyond what I see in a sketchbook. Two students may come to class with little work in hand. To the talented one I may offer comparatively little help so as to not reinforce the idea she can coast through. To the one who is struggling, I would offer more detailed suggestions to help him identify a beginning point for moving forward on his own.

In the end, this narrative illuminates the complexity of interpersonal relationships between student and instructor, the multiple roles the instructor often assumes, and the increased importance of the instructor being able to recognize areas of relative strength and weakness among their students. In other words, I see myself as a character in the story of each student's journey—each of them encounters me, but each is the protagonist of her own story and to each, therefore, I am a different character. The mix of mentor and monster is always present in me, but it varies dynamically as it intersects the narrative of the student.

Case 2: Instructional Graphics Design: Student Goes on a Journey—with a squire

In a studio course on instructional graphics design, created and studied together with the second author of this study, and taught primarily by the first author, in this section referred to as "me," since 2005 (Boling & Smith, 2010), students grapple frequently with the challenges inherent in the briefs that confront them when the course begins. The most challenging of these is "Draw 100 Things." In addition to the challenge of time (eight weeks), many of the students have little or no background in creating images and most have no experience with composition or layout at all. They have variable experience with the tools they will need to use.

In early iterations of the course, my co-designer and I realized that we needed to develop new briefs. We were using exercises similar to those that my collaborator and I remembered from our own studio experiences (see Figure 1). Students were not engaging intensely with these simple exercises, and many of them were persevering over 1-2 unproductive trial images far too long for them to experience either much practice or much iteration in designing. The "Draw 100 Things" brief which replaced them was not developed rationally, based on some principle of instruction or top-down analysis of the students' needs. It was partially an inspiration that felt like an intuitive gamble at the time, but on reflection was likely the result of two influences. First, we could see that the students seemed to struggle to figure out how the smaller exercises related to each other; second, in a different set of courses I had seen students put in far more than the minimum—or even the expected—effort on projects when they chose topics close to their interests but larger than I would have counselled them to try.
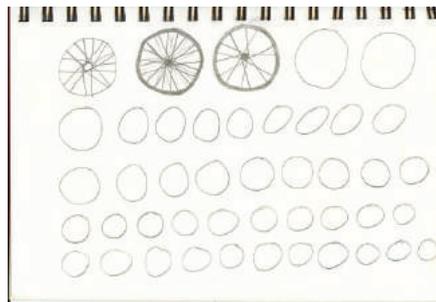

Figure 2. Sketchbook page from 2005 student attempting to complete an exercise focused on appreciation of negative space and selection of simplified shapes for describing forms.

"Draw 100 Things" had been an optional project for a previous iteration of the course, so we had seen that it had something of a fascination for students, but that it was also too daunting for most of them to tackle voluntarily. Reflecting on this project using analogy and a familiar lens for me, gestalt principles of perception, I had speculated that the fascination of the project was partially in the title. It displays "figural goodness," (Easterby 1970), which is a property achieved by visual shapes that display closure, continuity, symmetry, simplicity, and unity. Simply put, the title is self-contained and transparent; when students ask questions about it, it does not change—it displays continuity. It folds all the aspects of the former individual exercises into one activity, which I interpret as closure and unity.
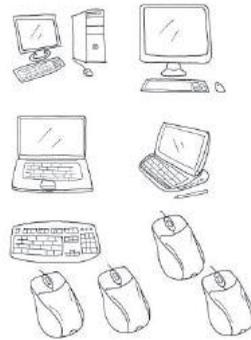
Figure 3. Sketch page from 2009 student preparing for "Draw 100 Things." Note the student has drawn a computer mouse five times and a notebook computer twice. For the students in this course (not majors in graphic design or illustration) this represents a high, and a productive, investment in practice over the example in Figure 2.

However, I did not have a conceptual basis on which to consider its daunting quality. After making this brief required for all students in a calculated gamble to require more, and more intensive, eye-hand practice, I was frankly surprised at how readily the students embraced it, despite their trepidation. The narrative lens helps to explain this. When the brief is introduced in class, my presentation is matter of fact. From what students tell me later in the eight weeks, I may as well have told them that in order to pass the class they each need to slay a dragon. The brief is presented in low key manner, like the start of a fairy tale in which a pleasant kingdom is introduced (the studio), and then, of course—because it is a fairy tale—a seemingly impossible quest has to be undertaken. Each of the students will undertake this quest in a personal way, finding the means to do so individually. This is business as usual in fairy-tale land and, as in such stories, each student rides off from the castle toward an uncertain future, experiencing a unique mixture of anticipation and dread.

In my field notes it is obvious that I am grappling with these students' challenges alongside of them. I talk with them about what they are trying to accomplish and offer suggestions to them, but I am often unsure how these suggestions will turn out—or whether they are the most productive directions for the individual student. This is not because I am unsure of myself as a designer, or as an educator, although I hope I have healthy levels of humility and doubt about both. It's because I see myself as a squire riding alongside each of them. Each of them is the main character in this story. I facilitate the plot twists, provide a little comic relief, and do a lot of the logistics, navigation and scouting required for a successful outcome. And I squire each of them differently depending on how they seem to be framing the quest. For those full of fervor, yet increasingly burdened by the enormity of the responsibility they have taken on, I hope to emulate Sam Gamgee—steadfast and encouraging, keeping an eye out for pitfalls, but refusing to complete the quest for the student who must do so for herself (Tolkien 2007). For another I am Sancho Panza, down-to-earth and even somewhat simple, as I question the scope of a too-ambitious plan, yet follow doggedly along to help see the project through (De Cervantes 2005). The squire role is one in which I am comfortable. I find that I can draw from myself appropriate responses in class while I am inhabiting this role, even though I have little idea what might come up next for each of my students.

Recalling my first year in a BFA program, I was handed a brief reading, "Plan and complete a drawing on which you spend a minimum of 30 hours actually drawing." This appeared to me at the time as a Herculean labor (Burkert 1985), punishing, arbitrary and likely impossible. I realize that the story of this experience was much the same for me as "Draw 100 Things" is for the students in our class. The difference is that the instructor in my BFA course played a very different role to that of my fairy tale squire. He played King Eurystheus, setting incredibly difficult tasks for me and disallowing any outside assistance with my work, including his own. This narrative worked for me, as did other, very different, ones played out in other studios where I studied, and it was a transformative experience. But as a studio instructor myself, I cannot play the role of the king. I believe that I would look and feel a little ridiculous doing so. My own notes also reveal to me that I want to go along on the journey, and I know that I do not have what it takes to resist giving advice when someone asks me for it.

Case 3: Interaction design: Stranger Rides into the Classroom

In one form or another since 1984, I have been teaching a graduate course in human-computer interaction design. Its latest variation is called "Interaction Design Practice" (IDP). It is the first master's course for students in the HCI Design program at Indiana University. The course requires students to understand design from multiple perspectives and to complete a series of difficult and comprehensive real-world problems within a team-based context. The curriculum is not for the "faint of heart," and to complete it requires dedication and skill. The students come from diverse backgrounds—computer science, engineering, informatics, psychology, journalism, education, and graphic design. The characteristic they share is that they are naïve designers shaped by their undergraduate training. Consequently their early perspectives require transformation; for example, the students believe incorrectly that there is a "best solution" to design problems, they adopt a technology-centered versus human-centered view of design, they worry more about grades than valuing critiques, and they tend to hold onto a single design concept versus systematic exploration of multiple concepts (Siegel & Stolterman, 2008). To challenge these barriers, I introduce a new kind of classroom environment whereby the well-practiced academic routines of past courses—traditional research methods, memorization of facts, writing of papers, use of algorithms to find "the answer"—no longer yield the kind of instructor approval and high grades of their former selves; these students encounter a new kind of rigor that includes systems thinking, critique, and reflection. To signal this "new game," I enter the classroom as someone who does not appear to follow the normal rules, a kind of "stranger who rides into the classroom." Everything I do, including the stories I tell, signals a topsy-turvy world where old assumptions get questioned and new behaviours must be learned.

The transformation begins informally during graduate student orientation, one week prior to the first day of classes. Second year students begin to tell the first year students, "the newbies," how IDP unfolds: "It may be one of the most difficult classes you take, but it's very much worth the effort." They refer to the course as a boot camp experience. "Each person in the cohort will know everything about you before the semester is over," they explain. "There are no secrets here." The new students meet me during orientation and I provide a brief overview of the course—not your typical syllabus of readings and papers: "It's a journey, an act of surrender." Making reference to an Edward Monkton cartoon titled "Zen Dog," I refer to him as our mascot.

("Surrender? A mascot?") The cartoon shows a picture of a beagle with eye patch, reclining in a row boat, floating in a large body of water. The caption reads: "He knows not where he's going / For the ocean will decide – / It's not the DESTINATION… / …It's the glory of THE RIDE." I tell the students that at times the journey will not be easy, but if you jump into Zen Dog's boat you will survive. One proud student proclaims, "I'm not afraid," and I respond, evoking the voice of the Star Wars character Yoda, "Oh you will be!" The students laugh nervously. Their transformation commences; the puzzle unfolds.

The first day of class begins with the lights turned down low. I stand before the students and play the Tingsha Tibetan cymbals, one sustained sound that resonates for nearly a minute. Then a short video begins, filling the nine screens encompassing the studio space. The images begin with the outer reaches of space, zooming into and circulating above planet Earth. The students see aerial images of their own country; if you look closely you can see the Great Wall of China. We come to the United States and zoom into Bloomington, Indiana. There we begin to see pieces of technology, from slide rulers, large scientific computers, to modern laptops, Kindles, iPads, iPhones and Apps; iconic names like Apple, Microsoft, Google, Facebook, and Twitter appear on the screen. All the while an exotic Indian tune plays in the background (exotic, that is to most of the students, and surprising to the few Indian students in the class)—haunting, distant, and yet inviting. Finally, the students read these words from Hesiod: *Before the gates of excellence the high gods have placed sweat; long is the road thereto and rough and steep at first; but when the heights are reached, then there is ease, though grievously hard in the winning.* Then the final words appear to the fading music: "Welcome to Interaction Design Practice—a human-centered view!"

The students are uncertain about what will happen next. The lights turn up; I reach for a cold can of Coke. I pop the lid. Psssh! "Did you hear that?" Listen to it again. I pick up another can. Psssh! "That sound was not made by accident. It was *designed*." The class continues with the design of other everyday objects. I open a Kleenex box. No matter how fast I pull tissues from the box, the next one pops up automatically. I ask some students to try it. "Someone, or more likely, some group of people designed this tissue box so it performs as we observe." We end the class with the syllabus and the unveiling of their first of five design problems.

The sound of cymbals, the video, the exotic music, the popping of Coke can lids, and the display of other objects entertain and instruct. More importantly, however, they signal a different kind of course. "This one will be different from the others," they think. And it is. In this course experience there are no right and wrong answers, and grades matter less; in its place I continue to act as "stranger," showing and telling in non-traditional ways, challenging their norm and slowly establishing a new one.

There are many occasions throughout the course where my "stranger rides into the classroom" narrative challenges their traditional "ways of knowing." An early example involves team process. I illustrate the challenges of working in groups through the introduction of the Tomy Big Loader—a Rube Goldberg-type toy with many parts. I dump the pieces in the middle of the floor and invite a team of five students to assemble the train and its associated parts. The "team" begins by grabbing pieces and trying to attach one to another. No one talks to the others and each person works independently for the first few minutes. The other students observe the team and take notes. After several minutes with little progress, I remove one of the team members and invite another in his place. Still, there is no success in assembling the Big Loader. I stop the frustrated students and ask them to describe what happened. Every aspect of

dysfunctional teams manifests in this little experiment: absence of trust, fear of conflict, lack of commitment, avoidance of accountability, and inattention to results (Lencioni 2002). Moreover, the students forgot to ask the most important question: "Does anyone have the directions?" I smile, remove them from my pocket, and hold them up for all to see. It is a big revelation to the students; when you don't ask questions, especially the most obvious among them, you miss important information that will retard your success as a designer.

My talks in the studio continue the "stranger rides into the classroom" narrative. One example focuses on a design analogy—thinking like a Zen raku potter. I begin the session by describing the history of raku pottery, a Japanese technique used since the 16th century. The process includes a thermic shock causing small cracks that become black from the smoke. Novice raku potters require many trials before they succeed in creating their first satisfying pot; to the new potter, the pot is precious. But the Zen master reminds the apprentice that the design is not the pot; the design is within the potter. The Zen master emphasizes this message by taking the novice's pot and throwing it to the ground, turning the once intact pot into many ceramic shards. When I tell this story, I meticulously show the students a beautifully designed raku pot. And then SMASH! The pot is a manifestation of the potter's design; it is not the design. I then ask teams to shred their design sketches for their current project as they look into their "design abyss" and wonder if they can reclaim their true design. One student commented:

> I'm still remembering when Marty broke the pot in class on Monday. I definitely didn't expect that. It took him about eight minutes to unpack the thing; he took it out so very carefully, mentioning that he valued it greatly. He was carefully holding the object as he walked around the room showing everyone. We were all like "ooo, ahhh, wooow, it's really nice." Then, just as I was starting to drift in and out of attention, BAM! It was shattered in the center of the room… it TOTALLY threw me off. I almost thought it was accidental, like he was going to just "fake" throw it. I immediately was like "oh shit" in my head. I zoned in on Marty's face, waiting for what he would say next… And I saw this calm look; I heard with 100% clarity his explanation and his analogy… I was able to pick up a piece of the pot before class was over. I now keep that piece in my pencil pouch so that every time I take out a pencil, I will see that piece to remind me that nothing is permanent – that my sketches and ideas should never have a permanent attachment to my mind. I will be reminded that I can start over and that I can take a piece of all or some of my ideas to create something new, something that can be better than anything previously…for the real design is within me.

Discussion

As educator/scholars, all four of us are familiar with the rational-systemic design philosophy, dominant in instructional design, and centered on problems carefully sequenced from simple to complex with activities thoughtfully chosen to provide practice in a well-defined set of skills (Merrill, 2002; van Merrienboer, Clark & de Crook, 2002). We are aware that experiencing this instruction can, in practice, feel routine and require additional strategies to be applied in order to engender or to improve motivation to learn. Our reflection on our own studio teaching suggests that we are not just replacing such rationalized systems of instruction with studio pedagogy, but enacting narratives, broadly defined, whether we set out to do so consciously or not.

Viewed through the framework provided by Parrish, Wilson and Brent (2010) we can see that the time, space and activity of the studio, seemingly chaotic to an observer or a novice, can be drawn together *through the narrative* as a form with compelling emotional quality and resonance.

The rational, systematic view of course design suggests that the potential for success in the design lies in the structure and strategies of the design, further implying that the ideal design may be enacted successfully without regard to the instructor. This view clearly stems from a different design philosophy than the aesthetic transformational view. While recognizing that even the most tightly controlled course designs are not likely to be enacted the same way twice, we see studio teaching as a loose structure within which the role of the instructor – enacted, not prescribed—is instrumental. Not every instructor is well matched to every role, which means that two studios covering the same material and taught by instructors of different temperaments will not be integrated successfully by the same underlying narrative.

Narratives played out in the studio do not have to be overtly stated or recognized, and may not be fully conscious on the part of the instructor or the students. In none of the situations we have described did one of us set out purposefully to script a narrative for ourselves. It is not clear that our courses would be improved simply by virtue of our having done so, and it seems intuitively likely that imposing an overt narrative on a course would reduce the compelling and immediate qualities required for highly aesthetic experiences—particularly if that narrative did not emerge uniquely from individual instructors. This having been said, developing the narrative impulse in studio instructors may well help to develop a deeper awareness of the roles we are playing in the studio and how we interact with situational and individual qualities that enhance the aesthetic, and hence the transformational, quality of design education.

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